



# Power Transformers

Siemens Colombia Power Transformers are the best choice for transforming electrical energy in an efficient, safe and reliable way.

www.transformadores.siemens.com









In our Industrial complex in Tenjo-Colombia, we design, produce and test according to IEEE/ANSI standars liquid immersed (Mineral or Natural/Sythetic ester) power transformers up to 120MVA and 230kV.

The Power Transformers portfolio includes:

Single-phase, Three Phase transformers and Autotransformers for applications like UAT (Unit Auxiliary Transformer) for combined cycle power plants, utilities with or without LTC, substation, captive, starting transformers for O&G industry with UL label.

Also Generation Step Up (GSU), mobile substations, Reactive compensation (SVC), reconnectable ("Dual Voltage"), collectors for renewables plants

#### **Advantages**

- Wide base of power transformers.
  Siemens Colombia has been operating on the mainland American for more than 35 years.
- Design and manufacture of transformers with the highest quality standards, adapted to the needs of electric companies and End users, complying with the National and International standards.
- Experience in supplying equipment with environmentally friendly technologies in high tensions.
- Siemens power transformers are designed with the latest technological advances: structural simulations, electrical and Magnetic fields, fluids, thermal analysis, Seismic and short circuit analysis.
- Manufacturing times adjusted to the project needs.
- · Wide backup, experience, reliability, excellence in

Project Management, ratified by our customers.

- Meet the most demanding tests: aptitude to withstand short circuit, partial discharges, SFRA (frequency response), increased Temperature and a BIL & SIL pulse.
- It has accredited laboratories (ISO17025). Routine and type tests.
- Experience in transport logistics and installation of heavy and extra loads dimensioned in areas of difficult access.
- Assembly and/or supervision of assembly and commissioning
- · Local technical support and service.
- Repairs and TLM services

### **Main technical Features**

- On-load tap changers LTC and deenergized DETC.
- Frequency: 50 Hz & 60 Hz
- Operating temperature:-50 ° C to + 50 °c
- Installation height up to 4000 masl.
  Cooling: Natural or forced (ONAN, ONAF, OFAF, OFWF, KNAN, Sarath, ODAF, ODWF)
- Outlets available for AT & MT: Oil-air, Oil-SF6, oil-Oil and Plug in type (eg. Pfisterer)
- Impulse level BIL up to 1050 KV.
- Types of oil: conventional (minerals) under IEC 60296 standards; ASTM 3487. Environmentally friendly alternative fluids:natural and synthetic ester.
- Oil Preservation System: System with Conservative tank and membrane; with gas mattress with automatic system.
- Transformers with complete systems of monitoring, control and communication with standardized communication protocols for according to international standards.
- Supply and forecast for systems of explosion

- protection.
- Degree of seismicity according to International standards. (IEEE, IEC and ETG (Endesa Chile))
- Exterior finish: Degree of protection to the environment according to ISO 12944-2 up to C5I & C5M. C5 or CX by agreement

#### Our experience

Below are some of the success stories of Transformers made in Colombia and installed in the Americas:







## Sensformer<sup>®</sup>

Siemens puts digitalization at the service, disposition and reach of its customers through the evolution of the traditional transformer to the Digital Transformer- Sensformer<sup>R</sup>, allowing clients access to vital information at any time and place through a mobile device, with a via GSM secure data transmission, cloud storage and analytical tools that allow in the other benefits verify their equipment lifespan.

For more information please visit the following link:

https://new.siemens.com/global/en/products/energy/high-voltage/transformers/sensformer.html

This flyer contains only general descriptions that in the case of a specific application may not exactly coincide with the described, or have been modified as a result of updates to the design of the products.

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